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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR			ATTORNEY DOCKET NO.
09/031.108	02/26/98	BARANDA		P	OT-4190
		PM11/0621	\neg	EXAMINER	
RANDY G HENLEY OTIS ELEVATOR COMPANY INTELLECTUAL PROPERTY DEFARTMENT 10 FARM SPRINGS FARMINGTON CT 06032				TRAN, T	
				ART UNIT	PAPER NUMBER
				3652	5
	uni e i nun nun nun nun dala			DATE MAILED:	06/21/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks





Office Action Summary

Application No. 09/031,108

Applicant(s)

31,108

Examiner

Thuy V. Tran

Group Art Unit 3652

Baranda et al.



Responsive to communication(s) filed on	·				
☐ This action is FINAL .					
Since this application is in condition for allowance except for for in accordance with the practice under Ex parte Quayle, 1935 C					
A shortened statutory period for response to this action is set to e is longer, from the mailing date of this communication. Failure to application to become abandoned. (35 U.S.C. § 133). Extensions 37 CFR 1.136(a).	respond within the period for response will cause the				
Disposition of Claims					
	is/are pending in the application.				
Of the above, claim(s) 23-65	is/are withdrawn from consideration.				
☐ Claim(s)	is/are allowed.				
	is/are rejected.				
Claim(s)	is/are objected to.				
☐ Claims are subject to restriction or election requirement.					
Application Papers See the attached Notice of Draftsperson's Patent Drawing F The drawing(s) filed on is/are objected The proposed drawing correction, filed on	to by the Examiner.				
☐ The specification is objected to by the Examiner.☐ The oath or declaration is objected to by the Examiner.					
Priority under 35 U.S.C. § 119 Acknowledgement is made of a claim for foreign priority un All Some* None of the CERTIFIED copies of the received. received in Application No. (Series Code/Serial Number received in this national stage application from the Interest *Certified copies not received: Acknowledgement is made of a claim for domestic priority in	ne priority documents have been er) ternational Bureau (PCT Rule 17.2(a)).				
Attachment(s) ☒ Notice of References Cited, PTO-892 ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s ☐ Interview Summary, PTO-413 ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Notice of Informal Patent Application, PTO-152	•				
SEE OFFICE ACTION ON THE	F FOLLOWING PAGES				



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DETAILED ACTION

Election/Restriction

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-22, drawn to a tension member, classified in class 474, subclass 173.
 - II. Claims 23-43, drawn to a traction drive in combination with an elevator system, classified in class 187, subclass 411.
 - III. Claims 44-57, drawn to a sheave, classified in class 254, subclass 333.
 - IV. Claims 58-65, drawn to a liner, classified in class 254, subclass 902.
- 2. The inventions are distinct, each from the other because of the following reasons: Inventions I, II, III and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as use in power transmission system. Invention II has separate utility such as use for driving an elevator system. Invention III has a separate utility such as use in winding apparatus for hoisting machines. Invention IV has separate utility such as a coupling between torque transmitting members. See MPEP § 806.05(d).



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- 3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
- 4. During a telephone conversation with Mr. Randy G. Henley on June 11, 1999 a provisional election was made with traverse to prosecute the invention of the tension member, claims 1-22. Affirmation of this election must be made by applicant in replying to this Office action. Claims 23-65 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
- 5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Claim Objections

6. Claim 1 is objected to because of the following informalities: in line 1, "an car" should be --a car--. Appropriate correction is required.

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Claim Rejections - 35 USC § 112

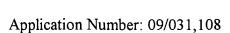
7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 15 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claims 11, 12 and 15, respectively, it appears in claim 1 that the applicant intends to claim a "tension member" as the subcombination of an "elevator system" while in the body of claim 15 there is positive recital of structure indicating that the combination of a tension member and an elevator system is being claimed, e.g., in claim 11, lines 2-3, "the engagement surface of the tension member is contoured to complement the engagement surface of the sheave"; in claim 12, lines 2-3, "the coating layer is shaped by the outer surface of the ropes to enhance the traction between the traction sheave and the tension member"; and the equation in claim 15, line 4, contains -- the diameter of the traction sheave-- for calculating the maximum rope pressure. Therefore, it is unclear if the applicants' intent is to claim merely the tension member for providing lifting force or the tension member in combination with an elevator system. These claims will be examined as subcombination.

Re claim 21, it is unclear what an "aspect ratio" of the individual ropes" is.



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Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 10. Claims 1-11, 13, 14, 16, and 18-21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Coleman et al. 4,445,593. (See Figures 4 and 7, column 3, lines 8-39).
- 11. Claims 1, 2, 5-11, 13, 14, 16, and 18-21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Puzik 5,593,366. (See Figures 1, 5-7).
- 12. Claims 1, 7, 11 and 16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either U.K. 1,401,197 or Pearson 1,164,115 or SU 1216120 A or Meurer 5,149,057.

Claim Rejections - 35 USC § 103

- 13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 14. Claims 3 and 4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Puzik 5,593,366 in view of Coleman et al 4,445,593.



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Puzik '366 discloses all the claimed limitations (see Figs. 1, 5-7) except for the tension member and the ropes are formed from strands of non metallic material. Coleman et al. '593 disclose a tension member 1 having a non-metallic material sheath 10, which encases a plurality of nonmetallic ropes 9. It would have been obvious to use non-metallic material to form the strands of Puzik's tension member as taught and suggested by Coleman et al '593, since non-metallic material was an art-recognized material used to formed strands of Puzik's tension member.

15. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greening 2,017,149 in view of Coleman et al. 4,445,593.

Greening '149 discloses a plurality of ropes, Figs. 1 & 2, each ropes is conformed around a groove 4 of a traction sheave. Greening '149 discloses all the claimed limitations except for the ropes are not encased by a layer of coating. Coleman et al '593 disclose a plurality of ropes 9, Fig. 7, are encased by layer of sheath 10 to improving the tensile stress on the cable. It would have been obvious to one having ordinary skill in the art at the time the invention was made utilize the teaching of Coleman et al applying a coating layer to the ropes of Greening in order to improve the tensile stress of the Greening's ropes.

16. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Coleman et al. 4,445,593 or Puzik 5,593,366.

Both Coleman et al. '593 and Puzik '366 separately discloses all the claimed limitations except for the engagement surface of the coating layer is shaped by the outer surface of the ropes or the individual ropes are flat in cross section. It would have been obvious matter of design

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choice to modify either the Coleman et al. '593 reference or the Puzik reference by having

rectangular shaped ropes, since applicants have not disclosed that having a rectangular in cross

section solves any stated problem or is for any particular purpose and it appears that the tension

member would perform equally well with the rounded ropes.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. Each of the cited references separately discloses a variety of tension members.

18. Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Thuy v. Tran whose telephone number is (703) 308-2558.

June 14, 1999

PRIMARY EXAMINER

Martin 1. Wh

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